4: Oberg E-5 (1949) 1953
SP17 Nambicuara SP77
Brazilian Indians SL4

In 1948, Kazuo Otaga, under the supervision of Dr. Oberg, measured 28 Umotina (14 males, 8 females), 13 Eastern Nambicuara (7 males, 6 females) of the Waikisu band, and 8 Irantxe males. The Umotina were measured at Barra dos Bugres, the Nambicuara and Irantxe at Utiarity. Small as these series are, they represent relatively large samples of the groups from which they are drawn. The total Umotina population is about 65, with 34 adults (see p. 106); the Waikisu band numbers only 18, and the Eastern Nambicuara together total only about 120 (see p. 86). No figures on the Irantxe are available but they are definitely a remnant group.

The drastic reduction of even the most secluded aboriginal populations in Brazil enhances the value of physical studies already made on them. The present contribution to the physical anthropology of northern Mato Grosso may be added to the earlier studies by Ehrenreich (1897), Ranke (1918), and Roquette-Pinto (1933). In addition, the Museu Nacional in Rio de Janeiro has unpublished physical data on some of the Upper Xingú tribes, particularly the Camayurá. Villard (see Imbelloni, 1943, p. 237, fn.) has unpublished information on these Nambicuara bands. Willems (personal communication) is in the possession of measurements on 40 male Tupinambá. A careful analysis of all these studies should go far in revealing even the physical anthropology of northern Mato Grosso. In the meantime, I have endeavored to fit the Umotina, Nambicuara, and Irantxe series into the existing knowledge of the area.

[p. 128 (8)]

4: Oberg E-5 (1949)1953
SP17 Nambicuara SP17
Brazilian Indians 54.4

B
144 derived from Von Eickstedt's Brasilide type. Unfortunately Von Eickstedt (1934, p. 736) has also confused the picture by considering the Aweti and Nahuqua representative of the Lagide or Lagoid type. Bracketed with the Aweti and Nahuqua are the Cuiuiú and Cayapó, and, further afield, the Botocudo and Aimboré. In addition, the Bacairí are said to show Pampide influence (Von Eickstedt, 1934, p. 737). But no evidence for this is offered. Meager as the series in table 1 are, it seems preferable to use them as the basis for tentative conclusions rather than to indulge in the risky short cuts of second-hand impressionism.

Morionally, the Parecí series appears to tie in well with the Upper Xingú tribes, except that it is somewhat longer-headed, due possibly to assimilation of longer-headed Nambicuara. Tentatively, then, the Parecí may be included in the Upper Xingú racial unit, especially since Oberg (p. 69) has noted the close similarity of the Parecí to the Bacairí. Possibly the Iranxe would also fit into this unit, although the present sample does not adequately indicate it.

N
B
141 The metric position of the Nambicuara is not
142 wholly clear from the present data. The two Nambicuara series are longer-headed than those from the Upper Xingú Basin, and possibly higher-vaulted (for Oberg's series), shorter-faced and narrower-nosed as well. Their skin color is perceptibly darker than the neighboring Parecí; in fact Oberg stated (personal communication) that when seen together swimming in the river, he could easily sort out the Nambicuara children on this basis. It is quite possible that the Nambicuara represent one of the living groups representative of the Lagoa Santa type (Newman, 1951, p. 90), but confirmation of this must await new findings by Vallois[1] and others.

B
141 Oberg (p. 69) has noted the decided contrast
144 between the Upper Xingú and other tribes north of the Planalto do Matogrosso and the "large-framed, coarse-featured" Bororo and Guató to the south. This distinction is probably on a full racial level, as already indicated by Von Eickstedt (1934, p. 731) and Imbelloni (1938, p. 239) who place the latter people with the Pampide or Planpide type of the Chaco and Pampas.

[1] Through typological [illegible] on basis chart in 1950 Anthro. Vallois made physical studies on three Planaltinian tribes. The Tupinambá, a Brazilian coastal group, and the Botocudo. Mean stature for 17 male Planaltinians measured by Vallois is 162.9 cm.

Chapter VIII

Physical Anthropology and Pathology

[118] [115] Unfortunately in 1912 the Nambicuara were not yet sufficiently accustomed to the presence of strangers in their mountains. In spite of their bribed willingness, they viewed my research with justifiable suspicion.

[119] [116] The Indians who were examined belonged to the following groups[2]: Cocozu, Anunze, Tagnani and Tawite [Tauité]. Among the Uainazu, a still hostile group, I was able to gather only one incomplete set of data. The state of excitement of the Indian during the examination did not permit better results.

[142] Their skin is the color of yellowish burned sienna, dark among the Cocozu, light among the others. Some Tagnani individuals have an almost pinkish complexion. Many nearly black types are found among the Indians of the Juruena and Juina rivers; those are the darkest Indians in Brazil. On the Roquette-Childe color scale used in the National Museum of Rio de Janeiro, the coloring of these Indians varies between numbers six and ten.

The skin is coarse and wrinkled.

The hair is straight and coarse (lissotrichous). Some individuals have wavy hair similar to that of the Polynesians. The Indians [142] usually pull out their body and face hair and cut it on the forehead with a bivalve shell. [176] A few of them leave some strands of hair above or below the lips.

[[146]] Nearly all permit their nails to grow freely, for they make useful implements to tear the meat at mealtime.

[[147]] The soles of their feet never become thickly callused as those of Negroes who go barefoot.

[142] Their feet are relatively large, their legs slender and muscular. The abdomen is prominent, the hands small. The chest is knotty [encordoado] and not very large.

[141] The measurements which we were able to obtain for normal adult males are shown in Tables A[2] and B.

[2] [See pp. 66-67, category 116. --Analyst]

[1] [Nambicuara sub-groups-- Analyst]

● 191 Table $C_{\frac{1}{4}}$ provides the data furnished by the pelvic measurements taken on some of the women, which indicate that the pelvic diameters are small. This is either what obstetricians call a "slender pelvis" [bacia gracil], or else it is a normal variant of the so-called aequabiliter justo minor (aequabiliter) found in our clinics in its aberrant form.

Women with such small pelves are [generally] short in stature; Nambicuara women are 1.47 meters in height as compared with 1.62 meters for the men.

Since as a general rule the stature of women is some seven per cent shorter than that of men, the height of Nambicuara women should be about 1.51 meters.

Roughly, it may be said that [Nambicuara] women are twelve centimeters shorter than [Nambicuara] men. In Table C, however, we find some types which exceed this average.

Some interesting facts were provided by an examination of [female] body proportions carried out on a few individuals who presented a configuration of the most characteristic physical train found in Nambicuara women. [Page of plates 176] [177] The resulting data are indispensable to the task of comparative physical anthropology.

The height of the head is slightly more than six times the height of the body (6.5).

The cerebral segment of the face and the respiratory segment are identical [in size]; the digestive segment is larger than the others.

The distance between the eyes (internal palpebral breadth) is longer than the lid opening; thus the eyes are set far apart due to the width of the nasal root.

191 The trunk is quadrangular, without lumbar depression and without a trace of steatopygia. The breasts of pubescent girls are small and cup-shaped, according to the Ploss-Bartels classification. In mothers they are large and not always widely separated; the base of the nipple is cupped outward, and the teat is erect. Among some of the mothers, the space between the breasts is half the diameter of one of the breasts.

The mid-point of the body is located above the pubic symphisis.

The jugulo-xiphoid distance (from the sternal furculum to the

$\frac{1}{4}$ [See p. 68, category 116.-Analyst]

xiphoid appendix) is half the xiphoid-pubic distance; thus the height of the abdomen is twice the height of the chest. In turn, the xiphoid-umbilical distance is twice the length of the umbilical-pubic line. This means that the navel of Nambicuara women lies closer to their pubis.

Pinard has already commented on the practical importance of these ratios in the semeiology of pregnancy. He showed how wrong it would be to apply to all races the research data that concern only a few.

I saw several pregnant Nambicuara women. The pregnancy was already in an advanced stage, but they would not allow any serious examination and I can state nothing about it.

[178] It is relevant to point out, however, that none of them exhibited those intradermic furrows caused by the forced distension of the abdomen "pregnancy weals") which occur frequently among white women.

In any case, the skin does not always have the same coefficient of extensibility.

The Indians' skin is endowed with special properties of which we know little. Martius depicted in his Atlas a Miranya Indian whose pierced nostrils had stretched so much that he could wrap them around the ears on either side.

The lips of the Botocudo provide another example of this.

Among the males, the three chief segments of the head follow the same ratio. The digestive segment is larger than the other two.

Again the height of the chest is half the height of the abdomen. The same ratios found among the women between the chest and the abdomen and between the parts of the latter are found among the men.

In view of these thoracic-abdominal ratios and of the distance from the navel to the pubis, it may be said that the Nambicuara man has a woman's trunk; and to carry further the study of these interesting proportions, it would not be wrong to assert that among these people the adult retains certain morphological characteristics peculiar to childhood, such as the location of the navel.

141 The mid-point of the body is located differently according
142 to sex: in the men it lies at the lower edge of the public symphisis.

The lower limbs of the women are longer; the men have a longer trunk. The women tend to be macroskelic, the men brachyskelic. We may note here that data obtained by Alex Hrdlicka among adolescents in North America proved the opposite to be the case among white populations.

The stature of the men is seven and a half times the height of the head; this follows the Greek rule; it is an interesting fact. The distance between the eyes is longer than the lid opening; the total height of the face is slightly greater than the length of the hand. The hand is about one tenth the total height of the body, the foot one eighth. The arm and forearm are roughly the same length. Merzbalkoff's "Mongolian eye" is rarely found.

Among the Indians of the Serra do Norte ["Northern Mountain Ranges"], premature loss of the incisors does not occur as it does among the Parecui.

145 According to my observations among some boys and youths, teeth-cutting does not follow the pattern usually found in the white race; the permanent teeth seem to appear at a different age.

Among whites, as a general rule, the dental arches are filled out as follows:

—	—	^	o	o	O	O	O
8	9	1	10	11	7	13	18
		6					

The first molar appears at the age of seven, the median incisors at eight, the lateral incisors at nine. The first premolar is cut at ten, the second at eleven; the canines emerge at twelve, the second molar at thirteen. The wisdom teeth or third molar appear at the age of eighteen, fragile and useless, [186], if it does not remain embedded in the gum through life.

Indeed the most interesting facts about the dentition of these Indians relate to the wisdom teeth, for more than once I noted their presence in youths who had certainly not yet reached their eighteenth year.

[Should read 12 in light of explanation below.- Analyst]

113

entre o tokelau da Asia e da Oceania e o chimberê dos indigenas de Mato-Grosso [Parasitological and Clinical Affinities between the Tokelau of Asia and Oceania and the Chimberê of Mato Grosso Aborigines]." Boletim do Museu Nacional, Vol. 6 (1930) No. 2.

[Pp. 191 through 210 omitted because they do not pertain to the Nambicuara.]

115 112 [211] If we compare the Serra do Norte Indians with other Brazilian aboriginal types, the following similarities and differences become apparent and worthy of note:

Skin: Their skin coloring places them alongside the Bororo and Canoja. (1) The southern group comprises the darkest Indians in Brazil.

[13]

1. The following data from Paul Ehrenreich's Estudos antropologicos sobre os Primitivos Habitantes do Brazil [Anthropological Studies on the Primitive Inhabitants of Brazil] (1897) were cited earlier by the author: "The skin color of the Parexi and Bororo is considerably darker and even more reddish [than that of other groups cited], being comparable to the tone of terra cotta (Broca Scale 30, 32, 44). The Canoja are the darkest on the exposed areas of the body." (Ed.)

114 Hair: The average index found in cross-section was about 69, very close to that of the Semang (Negritoes) of the Malayan Peninsula. Very intense pigmentation, thick medulla; circular section. [Fig. 16]

Stature: Twenty-five percent [of the Serra do Norte Indians] are less than 1.60 meters in height, 56 percent from 1.60 to 1.65 meters, and 19 percent from 1.66 to 1.70.

7: Roquette-Pinto--15 E-4, 5 (no date) 1938 SP17 Nambicuara SP17 (ca. 1912)

[4] [4] According to Ehrenreich's tables, in terms of stature the Indians of the Serra do Norte occupy a position intermediary between the Paresi and Nahuqua, and come close to the Bacairi, Mehinacu, Trumai and Yamamadi.

[212] The percentage of elevated statures (19 percent) places the Nambicuara near the Cayapo (20 percent) and far from the Bacairi (0 percent), Nahuqua (6.6 percent), Trumai (0 percent) and Paresi (11 percent).

The difference in height between the sexes (0.12 meters) places them far from the Tupian Indians, among whom the man is often shorter than the woman, and from the Arawakan groups, where men and women are of the same height (Barbosa Rodrigues).

In the circumference of the chest, equal to one half their total height, they approach the normal types of the white race (De Giovanni). The index between total height and chest circumference is 50.

This is not the rule among Brazilian Indians, whose chest circumference is usually more than one half their total height. In Ehrenreich's tables, the Indians closest to the Nambicuara in this respect are the Caraja of the Araguaia River, whose index is 53.3.

[4] [2] [4] The Manouvrier [Skelic] index expresses the ratio between the length of the upper part of the body and that of the lower limbs, which together add up to the total stature. Morphologically and physiologically, the upper part of the body (head and trunk) is much more important than the lower limbs. To determine its relation to the total height, therefore, is to disclose to some extent the biological worth of the individual (Montessori).

Manouvrier distinguished three basic types in terms of this index, which he named macroskelic, mesatiskelic and brachyskelic. In the middle type (mesatiskelic) the upper part of the body adds to slightly more than half the total height (index 52); in the macroskelic type, the index varies from 48 to 50; in the brachyskelic type, from 53 to 55.

[213] . . . This ratio applies to adults, for the proportions of the body undergo basic modifications in the course of growth . . . . The [three types] occur among all races and all peoples; however, research has shown that there is a certain prevalence of brachyskelic types among the yellow races, of macroskelic types among the black races, and of mesatiskelic types among the whites.

Brazilian Indians are brachycephalic, and the Nambicuara constitute no exception [to this rule].

[214] In terms of their cephalic index, the Serra do Norte Indians must be placed alongside the Paresi on Ehrenreich's chart (76).

Their nasal index (85), which approaches platyrrhinism, places them far from the Cayapo and from the Indians of the Ge group, who according to Ehrenreich have the narrowest noses.

Their facial index (74.6) places them close to the Bororo (75.9) and far from the Paresi (81.5) and other Arawakan Indians.

This somatic description of the Serra do Norte Indians shows to some extent that their characteristically American physical substratum of the Mongoloid type has been subjected to numerous influences leading to the present lack of homogeneity.

Various crosses must have modified the original Nambicuara type. From the standpoint of physical anthropology, I believe, their type is very similar to that of the Indians who speak Nu-Arawakan dialects. It is a type modified by alien blood and possibly by Negro blood.

[Plates page 198.]

[215]

Chapter IX

Ethnography and Linguistics

The Indians scattered through the valley of the Juruena and through the Serra do Norte inhabit territories bathed by Amazonian waters.

They are called Nambicuara (Nyambiquara, Manbyuara, Mambyara, Membyuara, etc.) by the frontiersmen and by the neighboring civilized Indians.

They number a few thousand. We do not know how many, and any estimate would be worthless. Since we either visited or learned with certainty of some twelve villages, we may reach a total of 1,200 if we grant each village an average of 100 inhabitants.

NAMBICUARA ANTHROPOMETRY -- MEN

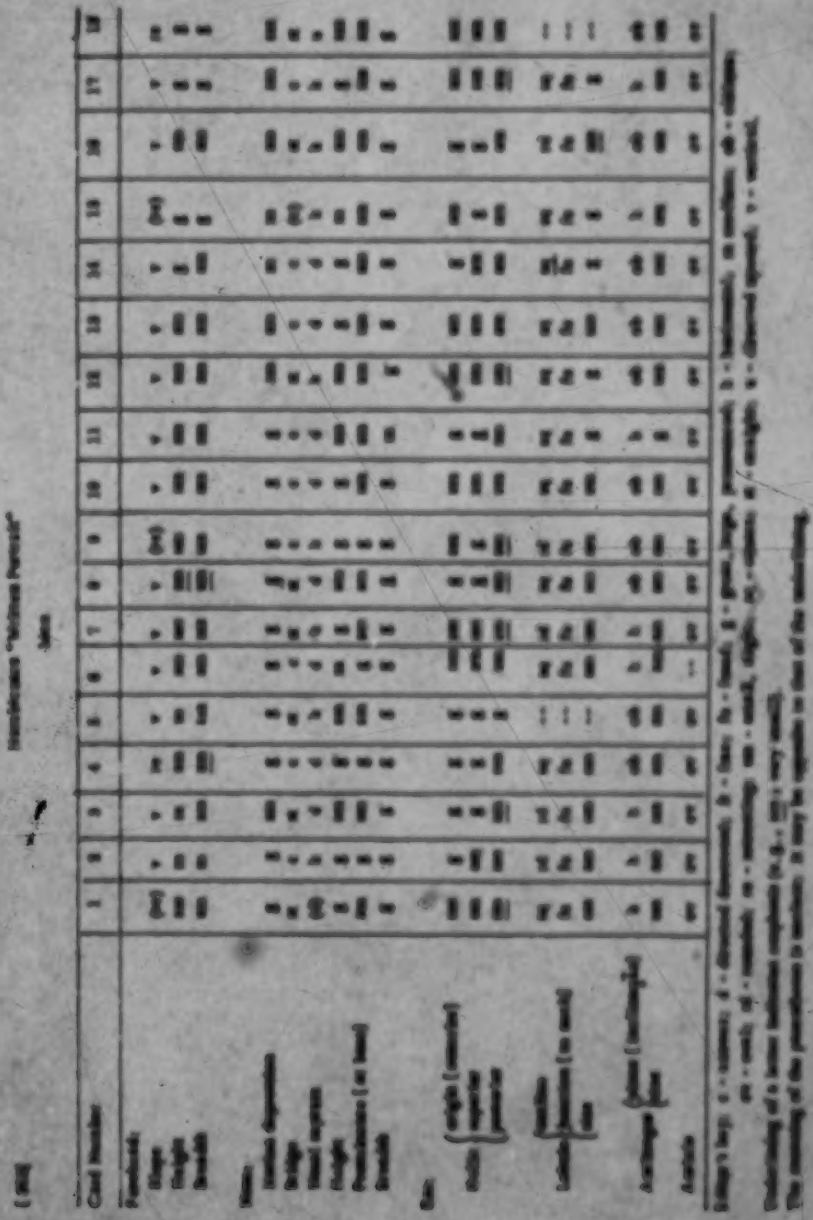
TABLE A

C - Cocozu-Nenen A - Anunze T - Tagnani Ud - Uaindze

Cad number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Mean
Group	C	C	C	C	C	C	C	C	A	A	A	A	A	T	T	T	T	Ud	
Total height	1,66	1,68	1,68	1,70	1,62	1,69	1,68	1,62	1,63	1,60	1,67	1,61	1,60	1,58	1,62	1,63	1,62	1,62	1,63
Chest circumference	0,80	0,83	0,84	0,90	0,82	0,79	0,79	0,81	0,80	0,78	0,79	0,81	0,82	0,78	0,83	0,87	0,89	0,82	0,81
Head (in millimetres):																			
Occipito-frontal diameter	0,189	0,184	0,194	0,188	0,178	0,173	0,190	0,174	0,183	0,174	0,176	0,194	0,182	0,178	0,172	0,178	0,174	0,178	0,184
Transverse diameter	0,144	0,141	0,147	0,141	0,149	0,149	0,135	0,141	0,143	0,140	0,140	0,139	0,136	0,142	0,141	0,140	0,149	0,142	0,140
Minimum frontal diameter	0,109	0,976	0,109	0,108	0,096	0,094	0,091	0,104	0,096	0,114	0,098	0,103	0,097	0,096	0,108	0,100	0,101	0,108	0,099
Maximum frontal diameter	0,117	0,137	0,145	0,143	0,138	0,133	—	0,135	0,129	—	—	—	—	0,132	0,175	0,137	0,133	0,142	0,134
Bizygomatic diameter	—	—	0,125	0,112	0,106	0,103	0,110	0,111	0,111	—	0,094	0,101	0,110	0,109	0,107	0,106	0,119	0,122	0,110
Face (in millimetres):																			
Height	0,051	0,047	0,047	0,050	0,048	0,047	0,044	0,042	0,053	0,047	0,043	0,043	0,045	0,046	0,046	0,049	0,051	0,052	0,047
Breadth	0,040	0,041	0,041	0,046	0,036	0,040	0,040	0,041	0,041	0,035	0,035	0,040	0,039	0,044	0,040	0,041	0,041	0,041	0,040
Prominence (at base)	0,016	0,020	0,018	0,019	0,016	0,014	0,010	0,020	0,016	0,018	0,016	0,014	0,016	0,020	0,017	0,019	0,019	0,020	0,017
Eye (in millimetres):																			
External longitudinal breadth	0,047	0,101	0,102	0,100	0,096	0,091	0,097	0,093	0,096	0,096	0,090	0,093	0,097	0,093	0,096	0,096	0,091	0,101	0,096
Internal palpebral breadth	0,027	0,040	0,036	0,039	0,032	0,032	0,034	0,036	0,036	0,032	0,029	0,033	0,034	0,030	0,034	0,031	0,033	0,037	0,033
Right ear (in millimetres):																			
Length	0,067	0,060	0,063	0,063	0,062	0,064	0,060	0,060	0,062	0,061	0,066	0,066	0,065	0,060	0,061	0,068	0,062	0,068	0,065
Breadth	0,033	0,032	0,030	0,037	0,036	0,033	0,036	0,038	0,031	0,030	0,036	0,034	0,032	0,036	0,030	0,038	0,032	0,032	0,033
Cubits (cm)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	22
Head (cm)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	56

T: Roquette-Pinto--66 E-4, 5 (no date)1938 SP17 Nambicuara SP17 (ca. 1912)

7:Roquette-Pinto--67 E-4, 5 (no date)1938 SP17 Nambicuara SP17 (ca. 1912)



[324]

Table C

Nambicuara Women

Card Number	1	2	3	4	5	6	7	Mean
Total height	1,43	1,44	1,47	1,45	1,52	1,45	1,55	1,47
Pelvic Measurements:								
Bi-spinal diameter	0,22	0,22	0,23	0,21	0,21	0,21	0,21	0,21
Bi-cristal diameter	0,24	0,23	0,24	0,23	0,23	0,23	0,25	0,23
Bi-trochanteric diameter	0,26	0,26	0,26	0,25	0,26	0,26	0,28	0,26
Sacro-pubic [external conjugate] diameter	0,17	0,18	0,17	0,17	0,16	0,17	0,19	0,17

"Written Portrait"

Card Number	1	2	3	4	5	6	7	
Forehead:								
Slope	v	v	v	v	v	v	v	
Height	sm	sm	sm	sm	sm	sm	sm	
Breadth	sm	sm	sm	sm	sm	sm	g	
Nose:								
Nasion depression	sm	sm	sm	sm	sm	sm	sm	
Bridge	st	st	c	st	st	st	st	
Nasal septum	d	sm*	d	h	h	h	d	*[sic]
Height	sm	sm	sm	sm	sm	sm	sm	

(continued)

Rondônia-Plano--88 E-4, 5 (no date)1988 SP17 Nambicuara SP17 (ca. 1913)

Table C (cont'd)

"Written Portrait"

	1	2	3	4	5	6	7
Prominence [at base]	sm	sm	sm	sm	sm	sm	sm
Breadth	sm	sm	sm	g	g	g	sm
Ear:							
Helix — origin [anterior]	sm	sm	sm	g	g	sm	sm
Helix — superior	g	sm	g	g	sm	sm	sm
Helix — posterior	sm	sm	sm	sm	sm	sm	sm
Lobule — outline	sq	sq	sq	sq	sq	rd	sq
Lobule — junction [to neck]	fu	fu	fr	fu	fu	fu	fu
Lobule — size	sm	g	sm	sm	sm	sm	g
Antitragus — plane [inclinaçõe]	h	h	h	ob	h	ob	ob
Antitragus — size	sm	sm	sm	sm	sm	sm	g
Auricle	ov	ov	ov	ov	ov	ov	ov

"Boasian-Plus--69 E-4,5 (on deposit 1968 at 17 Natchitoches 1917 (ca. 1913)

T:Roquette-Pinto--70 E-4, 5 (no date)1938 SP17 Nambicuara SP17
(ca. 1912)

[225]

Physical Type of the Serra Do Norte Indians (Nambicuara)
As determined by the "Written Portrait" method.

Forehead:

Slope -- Vertical 80%; retreating 20%.
Height -- Small 72%; medium 12%; great 16%.
Breadth -- Small 80%; great 16%; medium 4%.

Nose:

Nasion depression -- Great 68%; small 33%; medium 11%.
Bridge -- Straight 44%; convex 56%
Nasal septum -- Directed downward 45%; horizontal 50%; directed upward 5%.
Height -- Great 56%; medium 11%; small 33%.
Prominence [at base] -- Great 22%; small 78%.
Breadth -- Great 99%; medium 1%.

Ear:

Helix
- Origin [anterior] -- Large 44%; small 56%.
- Superior -- Large 44%; small 56%.
- Posterior -- Large 5%; small 95%.

Lobule
- Outline -- Square 78%; rounded [descendente] 22%.
- Junction [to neck] -- Fused 100%.
- Size -- Large 33.3%; small 66.3%.

Anteriorgus plane [inclinação] -- Horizontal 44.5%; oblique 55.5%.
Auricle -- Quadrangular 11%; oval 89%.

7:Roquette-Pinto--71 E-4,5 (no date)1938 SP17 Nambicuara SP17
(ca. 1912)

Dactyloscopic formulae of the Nambicuara Indians

Men

Card No. 1	V. 4333 V. 4222	Card No. 10	I. 2242 E. 4333
Card No. 2	V. 4333 V. 3222	Card No. 11	V. 4444 V. 4444
Card No. 3	V. 4343 V. 4222	Card No. 12	V. 4343 V. 4242
Card No. 4	V. 4333 V. 4222	Card No. 13	V. 4444 E. 4444
Card No. 5	V. 4444 V. 4443	Card No. 14	V. 3333 V. 2222
Card No. 6	V. 4344 V. 4344	Card No. 15	V. 3333 V. 2242
Card No. 7	V. 4444 V. 4444	Card No. 16	V. 3344 V. 2344
Card No. 8	V. 4344 V. 4344	Card No. 17	V. 3344 V. 4344
Card No. 9	V. 4333 V. 4242	Card No. 18	V. 4444 V. 4444

Women

Card No. 1	V. 4445 V. 4442	Card No. 4	V. 3343 V. 4242
Card No. 2	E. 4333 V. 4242	Card No. 5	V. 4343 V. 4344
Card No. 3	V. 4443 V. 4342	Card No. 6	V. 4444 I. 4444
Card No. 7	V. 3343 V. 3222		